CLAIMS

What is claimed is:

1. A charging apparatus for charging a battery comprising:

    a current source for providing current to the battery;

    a controller connected to the battery and to the current source for controlling charging of the battery; and

    a memory connected to the controller for storing use profile information.

2. The apparatus of Claim 1, wherein the memory stores use profile information about operation of the charging apparatus.

3. The apparatus of Claim 2, wherein the stored information comprises at least one of the group consisting of number of batteries charged, number of batteries of a first type charged, number of batteries of a second type charged, number of times specific charging processes were selected, number of times specific charging termination processes were used, number of times charging process was delayed to allow cooling of the battery, and main voltage.

4. The apparatus of Claim 2, wherein the stored information is downloadable.

5. The apparatus of Claim 2, wherein the stored information is downloadable into a computer.

6. The apparatus of Claim 2, wherein the stored information is downloadable into a reader apparatus.

7. The apparatus of Claim 1, wherein the memory stores use profile information about the battery.

8. The apparatus of Claim 7, wherein the stored information comprises at least one of the group consisting of battery type, battery capacity, charging process, initial temperature and connection time.

9. The apparatus of Claim 7, wherein the stored information is downloadable.

10. The apparatus of Claim 7, wherein the stored information is downloadable into a computer.

11. The apparatus of Claim 7, wherein the stored information is downloadable into a reader apparatus.

12. The apparatus of Claim 1, wherein the memory stores use profile information about battery type.

13. The apparatus of Claim 1, wherein the information is downloadable into a computer.

14. The apparatus of Claim 1, wherein the information is downloadable into a reader apparatus.

15. The apparatus of Claim 1, wherein the memory is non-volatile.

16. The apparatus of Claim 1, wherein the memory comprises an E^2PROM memory.

17. A battery comprising:

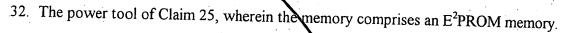a memory for storing use profile information about the battery.

18. The battery of Claim 17, wherein the stored information comprises at least one of the group consisting of battery type, battery capacity, charging process, initial temperature and connection time.

19. The battery of Claim 17, wherein the information is downloadable.

20. The battery of Claim 17, wherein the information is downloadable into a computer.

21. The battery of Claim 17, wherein the information is downloadable into a reader apparatus.

22. The battery of Claim 17, wherein the memory stores use profile information about initial temperature.

23. The battery of Claim 17, wherein the memory is non-volatile.

24. The battery of Claim 17, wherein the memory comprises an E²PROM memory.

25. A power tool comprising a memory for storing use profile information about the tool.

26. The power tool of Claim 25, wherein the stored information comprises at least one of the group consisting of tool temperature, length of use, and number of times tool has been turned on.

27. The power tool of Claim 25, wherein the stored information is downloadable.

28. The power tool of Claim 25, wherein the stored information is downloadable into a computer.

29. The power tool of Claim 25, wherein the stored information is downloadable into a reader apparatus.

30. The power tool of Claim 25, wherein the stored information comprises length of use.

31. The power tool of Claim 25, wherein the memory is non-volatile.

32. The power tool of Claim 25, wherein the memory comprises an E^2PROM memory.

33. A reader for uploading information from at least one of a charger, a battery and a power tool having a memory for storing use profile information, the reader comprising:

terminals for contacting the at least one of the charger, the battery and the power tool; and

a processor connected to the terminals for controlling uploading of information.

34. The reader of Claim 33, further comprising a memory connected to the processor for storing the information.

35. The reader of Claim 33, wherein the information is downloadable into a computer.

36. The reader of Claim 33, wherein the processor analyzes the information.